REMARKS

This application is being filed as a divisional application of U.S. Serial No. 09/135,010 which was filed on 17 August 1998. The parent application had been subjected to a restriction requirement in an Office Action mailed 13 April 2000. Applicants here elect the claims of Group VIII (claims 27-30, 34-37, 61 and 62) to be examined as part of the presently filed application. The remaining claims are canceled by this Preliminary Amendment.

Amendments have been made to page 1 of the specification to remove reference to research grants which were incorrectly listed as supporting research which led to the disclosed invention. In fact only Grant No. P50-HL52338-02 supported such research.

The amendment to page 11 is to insert a reference to SEQ ID NOs:115 and 116 as inserted by the new Sequence Listing.

The amendment to page 77 is to correct an oversight which occurred while preparing the parent disclosure (Serial No. 09/135,010). The '010 disclosure is a continuation-in-part of Serial No. 08/921,068. The '068 application presented one splice form of the DNA sequence which was lacking the 5' flanking sequence of the gene as well as sequence encoding the first 129 amino acid residues of the protein as appears in a second splice form of the gene. The additional sequence was included with the instant application and changes were made in the numbering of the amino acid residues except for the oversight on page 77. For instance, Table 3 on page 65 of the parent application lists the mutation as a deletion at codons 38 and 39. In the instant application a similar table is shown as Table 6 on page 76 and has properly corrected the numbering to codons 167 and 168. This change to 167 and 168 is hereby being made to the text of page 77.

The originally submitted Sequence Listing has been deleted and replaced with a new Sequence Listing. SEQ ID NOs:1-114 of the newly submitted Sequence Listing are identical to SEQ ID NOs:1-114 of the originally submitted Sequence Listing. The newly submitted Sequence Listing has added two sequences. SEQ ID NO:115 is a sequence of one spliced version of *KVLQT1* and

SEQ ID NO:116 is the protein encoded by SEQ ID NO:115. SEQ ID NOs:115 and 116 are identical to SEQ ID NOs:25 and 26 of parent application Serial No. 08/921,068 to which priority has been claimed and which was specifically incorporated by reference into the present application (see page 1, lines 6-11 of the present application). The relationship between SEQ ID NO:1 and SEQ ID NO:115 is that bases 481-3181 of SEQ ID NO:1 are identical with bases 121-2821 of SEQ ID NO:115. Similarly, the relationship between SEQ ID NO:2 and SEQ ID NO:116 is that amino acid residues 107-676 of SEQ ID NO:2 are identical with amino acid residues 12-581 of SEQ ID NO:116. It is urged that the addition of these sequences from the parent application does not add new matter.

Claims 36 and 37 have been amended to use correct Markush format language.

Claims 61 and 62 have been amended. As originally submitted, they depended from claim 59. Claim 59 was split from claims 61 and 62 by the Restriction Requirement imposed in the parent application and has not been elected for this divisional application. Consequently claims 61 and 62 have been amended to stand as independent claims and have incorporated language from claim 59.

Claims 64-67 are newly added. They are a repeat of claims 34-37 except that original claims 34-37 refer to SEQ ID NO:1 whereas claims 64-67 refer to SEQ ID NO:115. As noted above, there is considerable overlap of SEQ ID NOs:1 and 115. Parent application Serial Number 08/921,068 set forth one sequence for *KVLQT1* (hereinafter referred to as the "short form") (SEQ ID NO:25 of the parent application) and the present application sets forth a second sequence for *KVLQT1* (hereinafter called the "long form") (SEQ ID NO:1 of the present application). The differences between these two sequences are that the first 11 amino acids of the protein encoded by the cDNA in the '068 parent application are lacking in the present application and amino acid 12 as shown in the '068 parent application corresponds to amino acid 107 as shown in the present application, the first 106 amino acids of the present application not being presented in the '068 parent application. These two sequences represent different splice forms of KVLQT1 cDNA. The Chouabe et al. reference which was submitted as part of the Information Disclosure Statement discusses the presence of different isoforms or splice variants (see page 5472, last two paragraphs, and page 5473).

The originally submitted claims make reference to the "long form" of *KVLQT1* (SEQ ID NO:1) and the newly added claims make reference to the "short form" of the cDNA (SEQ ID NO:115). SEQ ID NO:115 is identical to SEQ ID NO:25 of the '068 parent application. The mutations referred to in each of the two sets of claims (those referring to SEQ ID NO:1 vs. those referring to SEQ ID NO:115) are identical but are numbered differently to take into account the different lengths of the sequences.

It is urged that the amendments insert no new matter, and their entry is requested.

Respectfully submitted,

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